

Notice of Public Meeting of a Public Body

Sections 7.6, 7.7.4 and 7.9.1

NOTICE OF PUBLIC MEETING OF THE – Governor's Forest Health Council

Pursuant to A.R.S. Section 38-431, notice is hereby given to the members of the Forest Health Council and to the general public that the **Forest Health Council** will hold a meeting open to the public:

November 13, 2008

9:00 am – 12:00 pm

**High Country Conference Center – Doyle Room
Located at the intersection of Milton Ave and Butler Ave
Flagstaff, Arizona**

Meeting Objective: To review Statewide Strategy Scorecard and preamble language, to update the council on the FS Implementation Plan and the Northern Arizona Pilot Project, discuss additional wood utilization strategies and follow up on the utilization recommendations within the Statewide Strategy.

- 1) Call to order, Ethan A., Molly P., Rob S., Rob D., Larry S., Todd S., Lucy M., Josh A., Wally C., Steve G., Kerry M., Darrell W.
- 2) Approval of the Minutes from September and October FHC meetings – approved
- 3) Update/discussion regarding Statewide Strategy Scorecard and preamble language ~ Glen Buettner and Ethan Aumack

The working group has been putting together a preamble language to clarify the scorecard's purpose to help collaborate with the forest service by January.

- 4) Landscape Implementation Working Group update ~ Ethan Aumack, Molly Pitts, and Lucy Murfitt

Accelerated Restoration across Northern Arizona ~ The Governor will send out a letter to the regional forester making the following requests:

- 1- *Validate and institutionalize the consensus agreement reached in the Statewide Strategy and the Analysis of Small-Diameter Wood Supply in Northern Arizona in any and all relevant forest planning processes.*
- 2- *Establish landscape scale planning, implementation, and monitoring mechanisms that allow the Forest Health Council and other relevant collaborative the opportunity to continue building and translating social agreement within the context of accelerated treatments across northern Arizona.*
- 3- *Aggressively pursue the development of long-term stewardship contracts and/or agreements that support an additional annual 30,000 acres of mechanical thinning over a twenty year period, as prescribed by Supply Study consensus agreement parameters.*
- 4- *Identify, bolster partnerships with, and direct contacts toward those industries with a proven collaborative record, and with the ability to substantially offset planning, administration, preparation, and treatment costs in the process of meeting the ecological goals identified within the Supply Study.*
- 5- *Clearly identify additional federal appropriations needed to support acceleration of consensus-supported forest restoration treatments across northern Arizona, and support Arizona's congressional delegation in its efforts to secure those appropriations.*

The letter is not supporting a particular industry or endorsing any contracts. This is will be an expression of continued support for the Statewide Strategy, and implementation of recommendations from the Analysis of Small Diameter Wood Supply in Northern Arizona.

Northern Arizona Pilot Project ~ ERI will receive funding for FY 09, \$600,000, for staff planning and research work. The finalized work plan will be completed in December, and ERI will share the work plan with the Council. Haydee Hampton from Forest ERA reviewed the datasets used to identify potential pilot project locations, and the group discussed various aspects of the proposed work.

- 5) An Assessment of Arizona's Wood-to-Energy Thermal Biomass Potential – Nick Salmon and Dusty Moller
Nick Salmon, Dusty Moller, and Robin Boudereau discussed various ongoing utilization efforts across the West, and in Nevada, and Arizona. The Council will take up utilization discussions again in January and determine any follow-up efforts appropriate and necessary.
- 6) Meeting schedule and locations
 - a. December meeting – to be or not to be?? There will be no meeting held for December. Resume in January in Phoenix.
- 7) Call to the Public – none

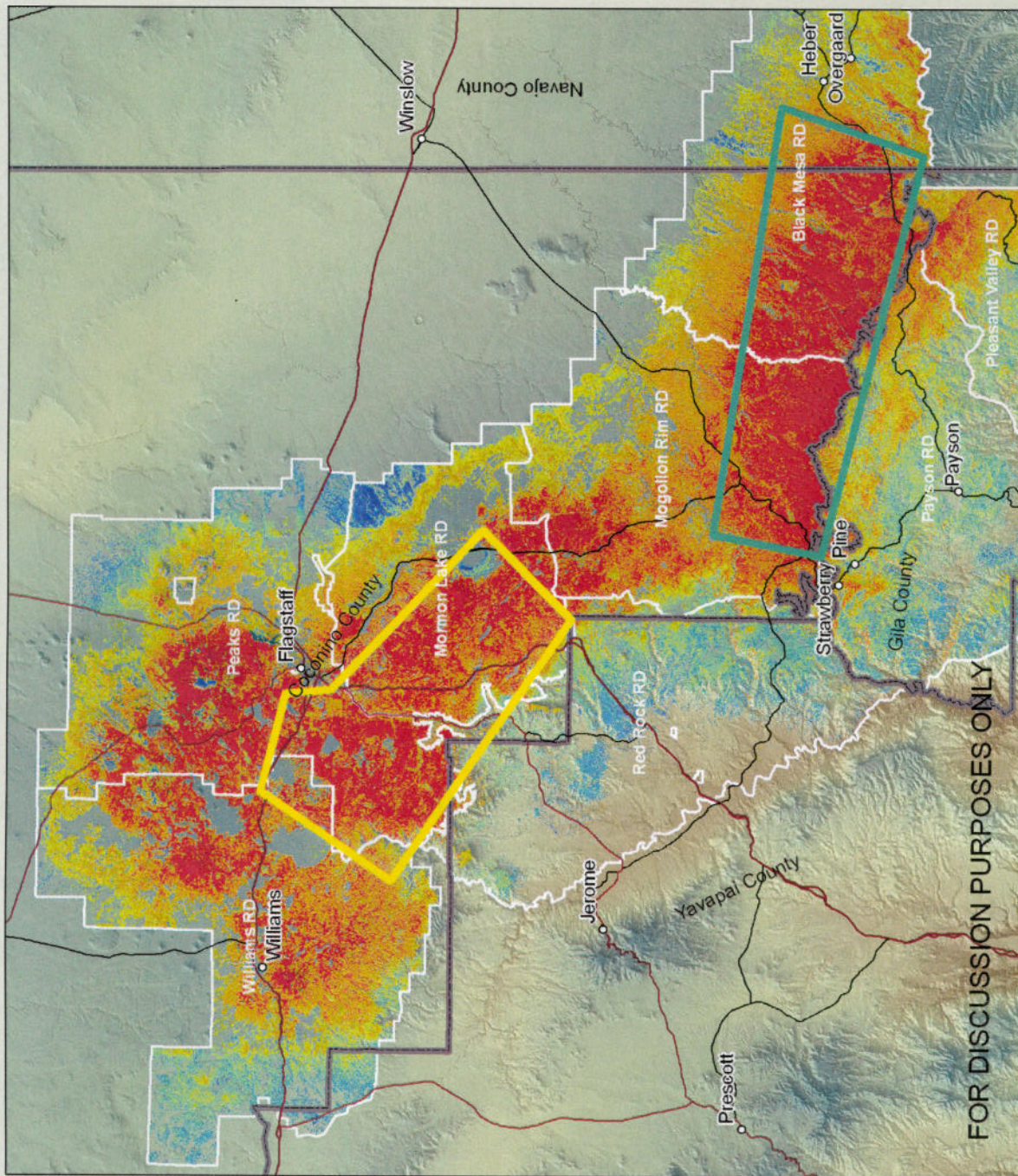
This is the time for the public to comment. Members of the Board may not discuss items that are not on the agenda. Therefore, action taken as results of public comment will be limited to directing staff to study the matter or scheduling the matter for further considerations and decisions at a later date.

*Dated this November 7, 2008
Governor's Forest Health Council
<http://www.governor.state.az.us/FHC/>*

CO-CHAIRS

Ethan Aumack – Grand Canyon Trust
Molly Pitts, Northern Arizona Wood Products Association

Person with a disability may request a reasonable accommodation such as a sign language interpreter, by contacting Diana Arroyo-Ochoa 602-771-1126 or dianao@azcommerce.com. Requests should be made as early as possible to arrange the accommodation.



Potential Pilot Project Areas

Central Mogollon Rim

Northwest Mogollon Rim

Crown Bulk Density (kg/m3) yr2006

0.001

0.002 - 0.002

0.003 - 0.004

0.005 - 0.005

0.006 - 0.009

0.01 - 0.016

0.017 - 0.025

0.026 - 0.038

0.039 - 0.057

0.058 - 0.203

Forest Service Ranger Districts

Counties

0 5 10 20 30 40 Miles

0 5 10 20 30 40 Kilometers



FOR DISCUSSION PURPOSES ONLY

Sample Criteria used by Landscape Working Group to Aid Selection of Northern Arizona Pilot Project Area

Target size: 100,000 to 500,000 acres (includes all vegetation types)

Nov. 13, 2008 Governor's Forest Health Council Meeting

Indicator	Criteria	Potential Pilot Project Areas		
		Size (acres)	Northwest Mogollon Rim 335,000	Central Mogollon Rim 366,000
Crown fire potential	Average crown bulk density (kg/m ³ /acre)		0.045	0.055
Crown fire spread potential	Percent of area with high crown contiguity ¹		30%	60%
Complements FS planning / Implementation opportunities	Coconino NF 10-yr Plan Analysis areas (acres)		145,350	72,532
	Coconino NF NEPA-completed Analysis areas ⁵ (acres)		92,813	1,848
	Coconino NF NEPA-completed Treatment areas (acres)			24,118
	Apache-Sitgreaves NF 5/10-year Plan Analysis areas (acres)			20,154
	Apache-Sitgreaves NF NEPA completed Analysis areas (acres)			5,128
	Tonto NF NEPA-completed treatment areas (acres)			
	<u>Wood Supply Analysis² Landscape Mgmt Areas</u>			
	Community protection mgmt areas		50,593	16,286
Wildlife resource	Mexican spotted owl restricted habitat		46,191	26,931
Multiple funding sources	Municipal watersheds		9,142	32,156
Wildlife resource	Aquatic species watersheds		36,845	67,067
	Wildlands		52,883	103,101
	OUTSIDE COMMUNITY PROTECTION, SUBTOTAL		145,060	229,255
	% of outside community protection mgmt areas		52%	69%
	Not a Source of Supply		83,930	86,566
	TOTAL WSA area		279,583	332,107

1. Hot spot analysis (Getis-Ord Gi statistic) carried out for 10 categories of crown bulk density with one stnd deviation defining high crown contiguity.

2. Analysis of Small-Diameter Wood Supply in Northern Arizona. Forest Ecosystem Restoration Analysis Project, 2008,

Center for Environmental Sciences and Education, Northern Arizona University.

1. Current status of ADOA program to enter into contracts for purchasing electrical energy generated from biomass resources.

ADOA has not yet entered into contracts for purchasing electrical energy generated from biomass resources. ADOA has met with representatives from the utility industry and biomass pellet industry and consulted with the Department of Commerce Energy Office.

ADOA will evaluate options for using biomass energy when planning any future state buildings, particularly in Flagstaff. Transportation of wood is a large cost factor; consequently, biomass plants are located near the wood source. The transportation cost is of a typical 24-ton pellet or raw wood load is \$3.00 per mile. Industry experts do not consider it practical to transport wood more than approximately 80 miles because of this cost. If construction of a state office building in Flagstaff is approved, ADOA will evaluate the use of biomass energy at that location, including the potential use of biomass pellets for electricity or to power boilers.

2. Sources, potential sources and quantities of biomass electrical energy.

APS is a partner in a three mega-Watt (MW) biomass plant in Eager and a 14-MW plant in Snowflake. The Snowflake plant became operational in July, 2008, and is currently producing 24 MW electricity. The Commerce Energy Office reports the arrangement for selling the energy is as follows: SRP takes the first ten megawatts, with the rest going to APS. They, in turn, sell to their customers through their renewable programs. APS reports that it continues to investigate opportunities to add biomass generation to its renewable energy portfolio.

Forest Energy Systems LLC, the primary biomass private enterprise in northern Arizona, produces wood pellets from biomass. Forest Energy reports that the demand for biomass pellets is very high. The company participated in the Eager Town Hall project, which incorporated a 500,000-Btu/hour pellet-fired boiler and a custom-designed 9-ton silo. It has constructed two 150,000-Btu/hour pellet boilers in Springerville for a building which is leased by the U.S. Forest Service. Forest Energy also is working on a ten-year contract (White Mountain Stewardship Contract) to thin 150,000 acres of the northern Arizona forest and is working to locate a future pellet plant in the Flagstaff area. Forest Energy reports that it has an ongoing commitment to develop the biomass energy industry within Arizona and throughout the Southwest.

Fort Apache Timber consumes a significant portion of forest-thinned products for wood-molding plants. Biomass pellets harvested and processed in northern states such as Minnesota and Montana are sold through retail outlets for wood-burning stoves.

3. The availability of biomass electrical energy on the public market, including fuel sources and operating and planned generation sources.

At this time, biomass generated energy is available on the public market. APS received approval in July, 2007, from the Arizona Corporation Commission for "Green Choice Rates" as part of a "Green Energy Program." The program allows APS customers, including the State of Arizona, to purchase energy in 2008 on a mix of renewable sources. This includes biomass-generated power from the APS biomass power

plant in Snowflake and Eager. Under the "Green Choice Block" plan, one can choose the number of 100-kWh blocks of renewable energy to purchase every month. With this plan, the rate, in addition to normal monthly charges, is \$0.01 plus tax per kWh with a minimum of 100 kWhs. Under the "Green Choice Percentage" plan, one can choose the percentage of usage, with four different tiers of options for non-residential customers. With this plan, the rate, in addition to normal monthly charges, is the same per kWh as in the other plan, with a minimum of 10% of monthly usage available to non-residential customers.

The Commerce Energy Office reports the utilities have received approval to count these resources towards their renewable requirements. As noted above, electricity generated from biomass is at a premium cost; and the current budget shortfall would factor into decisions regarding power for state buildings.

4. The market demand for biomass electrical energy.

The energy generated at the biomass facility near Eager is fully operational and the Snowflake plant is currently operating at full output, 24 MW. Forest Energy Systems, LLC indicated that the demand for its biomass fuel pellets is high.

5. The relative costs of generating biomass electrical energy and conventional electrical energy.

APS informed ADOA that the generating cost of green power from renewable resources (solar, wind, geothermal and biomass combined) is 6.61 cents per kWh., whereas the cost to generate electricity from coal is 2.11 cents / kWh and from nuclear fuel is 0.94 cents per kWh. These costs do not include any transmission costs. Industry experts report that biomass wholesale electricity rates are approximately eight cents per kilowatt hour (kWh).

Biomass is more efficient at generating thermal heat, as opposed to electricity. Consumed locally, a sample rate for biomass-generated heat would be approximately \$8 per million British Thermal Units (mmBtu), compared to \$9 per mmBtu for natural gas. The cost ranges from below \$9 per mmBtu, for chips transported 50 miles, up to \$12 per mmBtu, for chips transported 200 miles. Pellets are more expensive to produce, but less expensive to transport; the break-even point for processing of chips into pellets is approximately 100 miles.

Forest Energy reported that a typical one-million-Btu-per-hour biomass boiler costs approximately \$100,000, which is fifty percent higher than a conventional-fuel boiler. The key to the success of these plants is the availability and delivery cost of the biomass fuel. Transportation of wood is a large cost factor; consequently, biomass plants are located near the wood source. The transportation cost of a typical 24-ton pellet or raw wood load is \$3.00 per mile. Pellets are produced at 80 pellet plants nationwide and shipped locally. Industry experts recommend that a biomass plant be located within approximately 80 miles of a forest.

6. The contract price for biomass electrical energy paid pursuant to any contracts compared to the price paid by Arizona for conventionally generated electrical energy.

As noted above, ADOA has not yet entered into contracts for purchasing electrical energy generated from biomass resources.